

**METHOD FOR MAKING CIRCUIT ELEMENTS**  
**FOR A Z-AXIS INTERCONNECT**

**ABSTRACT**

5           Methods for producing circuit elements the resultant circuit elements, and  
methods for making circuits therefrom are disclosed. A precursor circuit element  
includes a first insulating layer with conductor thereon and an electrically conducting  
member or bump, protruding from the conductor, that provide a shape to one surface  
of the precursor circuit element. A second insulating layer, including an adhesive, is  
10       placed onto the precursor circuit element and assumes the shape of the aforementioned  
surface of the precursor circuit element. A portion of the insulating layer is removed  
proximate the apex of the bump to expose at least a portion of the bump, for a  
sufficient electrical connection with a subsequent circuit element, while maintaining a  
sufficient amount of the insulating layer on the first initiating layer and bump to  
15       facilitate the mechanical connection (bond) between this resultant circuit element and a  
second circuit element, that may or may not have been produced by the method of the  
present invention.